Specification:

Please replace paragraph #17 (which is part of the **Detailed Description)** with the following (changes are indicated as underlined):

FIG. 1 is a schematic diagram illustrating the conceptual basis of the present invention, as implemented in either digital (chip-based) or analog ("chipless") tags. (Examples of digital tags include "smart" access-control cards, commonly used to enter a secure building or locked gate. Examples of analog tags include chipless multi-resonant anti-theft tags used in retail environments) As indicated in FIG. 1, conventional tags generate only a fixed or "programmed" ID string (i.e., the first portion of the ID string shown in FIG. 1). An electronic label in accordance with the present invention, however, would produce a modified ID signal that is based not only on programmed information intrinsic to the tag circuit, but also on a quality or physical property of either the label or the object. Therefore, the combination of fixed data in the tag, plus the externally derived physical sensor data, forms a unique identifier code for the tagged object. As shown in FIG 1., in the case of a chipless tag, this code is represented in the frequency-domain as one or more modified resonant frequency peaks; and in the case of a chip-based tag, this code is represented in the time-domain as one or more modified bit sequences output from the chip. Furthermore, in the case of a digital chip-based tag, an additional level of security can also be gained by encrypting the ID code with an encryption function F, such that the function F is also dependent on the externally-derived physical sensor data.

Please replace paragraph #18 with the following:

Other, general embodiments of the invention are depicted in FIGS. 3A and 3B, with the antenna elements omitted for clarity. In the embodiment shown in FIG. 3A the physical properties (and thus the corresponding sensor portion of the ID string) are derived from the marker region 330 on the inlet 320 and thus independent of the object. For example, a "smart label" manufacturer can combine a radio-frequency IC chip containing sensor inputs, with a custom-manufactured inlet, and the inlet can contain special physical properties making it difficult to reproduce. By way of further example, the marker region 330 can be comprised of random patterns of conductive fibers, printed patterns of conductive inks, or the inlet could be woven from a random network of conductive fibers. This renders the smart label more difficult to counterfeit. This embodiment would be suitable for labels for designer goods, such as leather goods, athletic shoes, fashion clothing, textiles and the like. A more detailed illustration of inlet 320 is shown in FIGS. 4A and 4B, for the case of a chip-based label.